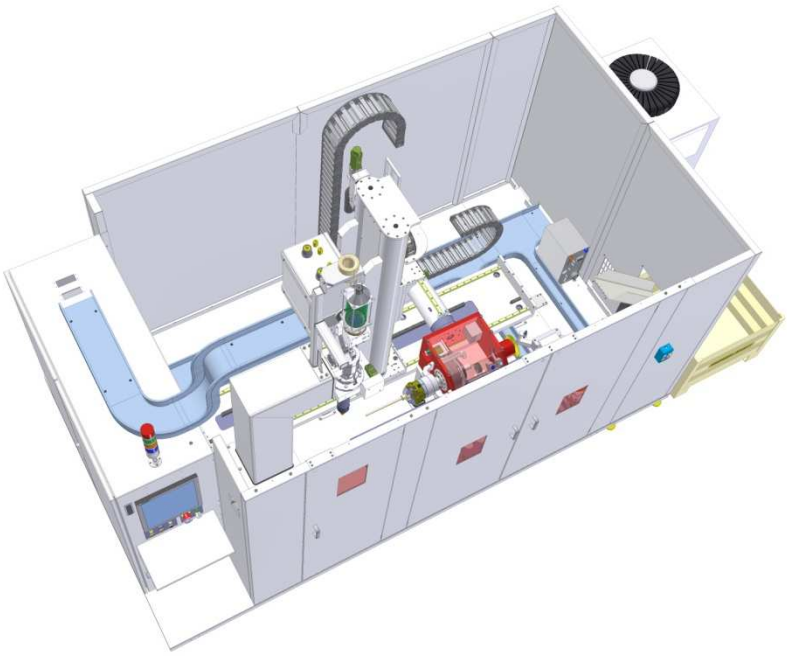
COMMERSALD IMPIANTI

ROBO NEXT

N.C. PTA EQUIPMENT COMPLETE OF WELDING AND PRE-HEATING UNIT

ROBO NEXT is an equipment managed by Numerical Control suitable to make welding deposits with P.T.A. Plasma Transferred Arc technology with powder
Is composed by 7 cartesian axis and is suitable to hard-face shaped parts max weight 12 Kg.



The equipment is built on a main steel frame where are assembled :
• the welding section with the motion system.
• the induction pre-heating unit
• the stock for the collection
• the N.C Mitsubishi 800 and the operating console
• the automatic cleaning system of the torch.

PTA WELDING

The electric panel is comprising of an inverter welding machine produced by Commersald Impianti under the same basis as the standard type PTA200i. The system is complete of cooled welding torch and powder feeder. The welding machine grants an output current of 200A at 100% and it allows to make single pass **welding of thickness from 1 to 2,5 mm and a deposition rate till 2 kg/h** respecting severe metallurgical parameters.

MOTION

The system is composed by seven axis: three cartesian, two rotating for the piece moving, one torch oscillator and one torch wrist rotation 0° +370°.
Thanks to its planning and construction features, this motion grants:
- **smooth exit of the powder,** because it is possible to place the powder feeder closed and perpendicular to the torch;
- **high precision in positioning**, even after years of working;
- **quick displacements** thanks to the strong and powerful system;
- **nearness of the operator** to the welding point, and consequent good visibility of the arc, even with closed barriers.

INDUCTION PRE-HEATING

The induction pre-heating system, integrated in the equipment is based on standard HEAT24 produced by Commersald Impianti The main advantage of induction pre-heating is the high efficiency that means fast and uniform heating in a time that is lower than welding time. This version is dedicated to pieces with **max sizes Ø 150 x 350 mm.**

NUMERICAL CONTROL

The programming is done by means of a Mitsubishi numerical control developed especially for Commersald, with program language ISO implemented and integrated with the welding and heating parameters. The whole cycle is managed by the CNC, automating the production cycle until the completion of all the pieces in the stock. The NC manages as welding as pre-heating.

ROBONEXT

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TECHNICAL FEATURES ROBONEXT

FEATURES OF THE MOTION			
Structure	Stroke Z axis	mm	840
	Stroke X axis	mm	1200
	Stroke Y axis	mm	520
	RPO axis	degrees	0-370°
Oscillator	Max amplitude of oscillation	mm	40
Rotating table	Axis C (tilting)	degrees	-90° + 140°
Work-piece	Max diameter of the welding area	mm	600
	Max heigh of the deposit	mm	900
	Max weight of the piece	kg	12
FEATURES OF THE WELDING MACHINE			
Pilot arc generator	Output current	A	70 at 100%
Transferred arc generator	Output current	A	200 at 100%
Powder feeder	Delivery	kg/h	0,5 - 3,5
	Capacity	kg	7
Deposition rate		kg/h	0,5 - 2,0
FEATURES OF THE PRE-HEATER			
Power of generator		kW	12
Frequency		kHz	30 - 50
Pre-heating max temperature		°C	600
Control of temperature		Pyrometer	
Max sizes of the work-piece		mm	Ø 150 x 350
GENERAL FEATURES OF THE INSTALLATION			
Overall size	dimensions (lxpxh)	mm	4200x1650x3500*
	Weight	kg	
Installed power		kVa	50
Tension		400V 50/60 Hz (3F+N+T)	
Compressed air		bar	5
Cooler	Given power (water at 20°C)	W	16.000
Gas (two available input)		bar	7

Commersald Impianti Srl has the right to modify, while completing the operative planning, the technical details here written. In case these changes, done to improve the installation as much as possible, are quite important, Commersald Impianti Srl will inform the buyer in due time for approval.

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